

Appl. No. 10/080,458
Atty. Docket No. G-275 (CP-1235)
Amdt. dated 12/21/2004
Reply to Office Action of 09/21/2004
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REMARKS

Application Amendments

Claims 1-24 are pending in the present application. No claim amendments have been made. No additional claims fee is believed to be due.

Rejections Under 35 USC 112, First Paragraph

Claims 17-24 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. The claims allegedly contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner asserts that Applicant's previously presented amendment to claim 17, which limited the range of hydrogen peroxide oxidizing agent in Applicant's developer composition to be "from about 6% to about 15%", is not supported by the original disclosure. The Examiner states that "6%" is mentioned only as a preferred form in which the oxidizing agent is present in the composition, and does not amount to a disclosure of the range of concentration of hydrogen peroxide. Applicant respectfully traverses the present rejection based on the following comments.

Applicant's original specification describes the currently claimed invention in sufficient detail such that one of skill in the art can reasonably conclude that Applicant had possession, at the time the application was filed, of the currently claimed invention. "The specification as originally filed must convey clearly to those skilled in the art the information that the applicant has invented the specific subject matter later claimed. When the original specification accomplishes that, regardless of how it accomplishes it, the goal of the description requirement is realized." *In re Wright*, 866 F.2d 422, 424 (Fed. Cir. 1989). Therefore, "the specification as a whole must be considered." *Id.* at 425. Additionally, "the invention claimed does not have to be described *ipsis verbis* [in the original specification] in order to satisfy the description requirement of § 112." *Id.* at 424. Newly added claim limitations can be supported in the specification through express, implicit, or inherent disclosure. *See* MPEP 2163.

In support of the previously presented amendment to claim 17, Applicant referred to page 9, lines 25-30 and to page 10, lines 20-22 of the specification, as well as to

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Examples 1 and 4 at page 14 of the specification. Although, as the Examiner notes, page 9, lines 25-30 provide a description of the ranges of concentration of hydrogen peroxide in Applicant's developer composition, Applicant's specification as a whole, must be considered. First, at page 9, lines 25-30, the range of hydrogen peroxide is described most broadly as "from about 1 to about 15%." Then, at page 10, lines 20-22 of the specification, a further description of the ranges of concentration of hydrogen peroxide in Applicant's developer composition is provided. Specifically, the specification states that "[t]he oxidizing agent is preferably present as a 3 to 12% (10 to 40 volume), most especially 6%, aqueous hydrogen peroxide solution." Additionally, at page 14 of the specification, in Examples 1 and 4, Applicant discloses developer compositions containing 12.3% of a 50% hydrogen peroxide solution (*i.e.*, 6.15% of hydrogen peroxide).

Therefore, Applicant respectfully submits that consideration as a whole of the original disclosure of the specification provides support for a range of concentration of hydrogen peroxide of "from about 6% to about 15%", as claimed in the previously presented amendment to claim 17. Based on the express, implicit, and inherent disclosure of the original specification, one of skill in the art can reasonably conclude that Applicant had possession, at the time the application was filed, of the currently claimed invention. Accordingly, the present rejection of claims 17-24 should be withdrawn.

Provisional Double Patenting Rejections Over Co-Pending US Application No. 10/080,459

Claims 1-7, 9, 15-17, and 23-24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of co-pending US Application No. 10/080,459. Additionally, claims 8, 10-14, and 18-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of co-pending US Application No. 10/080,459 in view of Applicant's statements in the Background of the Invention section of the specification of the present Application and US Patent No. 6,432,147 to Dias et al ("Dias").

Upon receiving notice of allowance of co-pending US Application No. 10/080,459, Applicant is prepared to file a properly executed terminal disclaimer in

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compliance with 37 CFR 1.321(c). Therefore, it is believed that these provisional rejections can be overcome.

Rejections Under 35 USC 103(a) Over US Patent No. 6,432,147 to Dias et al.

Claims 17-24 are rejected under 35 USC 103(a) as being unpatentable over US Patent No. 6,432,147 to Dias et al. ("Dias"). The Examiner asserts that Dias discloses a hair coloring composition comprising hydrogen peroxide, Applicant's claimed polymer present in Applicant's claimed range, Applicant's claimed phosphate ester surfactants, Applicant's claimed cosolvents, and water, wherein the composition is within Applicant's claimed pH range. The Examiner acknowledges that Dias does not specifically teach a range for the concentration of Applicant's claimed surfactant, however, the Examiner asserts that the exemplified compositions of Dias suggest a surfactant concentration of 1.5% to 1.7% which is within Applicant's claimed range. Applicant respectfully traverses the present rejection based on the following comments.

Dias does not teach or suggest all of Applicant's claim limitations and, therefore, does not establish a *prima facie* case of obviousness (MPEP 2143.03). Applicant's developer composition as claimed in claim 17 requires, *inter alia*, from *about 6% to about 15%* of a hydrogen peroxide oxidizing agent, and from *about 0.5% to about 5%* of a *phosphate ester* surfactant. Applicant's developer composition facilitates the removal of polymeric film formed on the surface of manufacturing equipment during or after the manufacture of the developer composition. This benefit is particularly important when stainless steel manufacturing equipment must be employed, as is typically the case for hair dye compositions which contain a hydrogen peroxide oxidizing agent present at a concentration in Applicant's claimed range.

First, Dias does not teach or suggest a developer composition containing from about 6% to about 15% of a hydrogen peroxide oxidizing agent. Although the Examiner acknowledges that Dias does not teach a composition containing from about 6% to about 15% of hydrogen peroxide as claimed, the Examiner asserts that it would be obvious to one of ordinary skill in the art to find an optimum concentration of hydrogen peroxide by routine experimentation. One would be motivated to do so, the Examiner argues, in order to obtain faster hair color application times on "non-living hair". However, Dias does not leave the level of hydrogen peroxide in its compositions open for optimization by routine

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experimentation. Instead, Dias specifically teaches away from compositions which contain higher concentrations of hydrogen peroxide. Dias is directed generally to hair coloring compositions which can provide excellent hair coloring benefits while reducing hair damage by *using substantially less of an inorganic peroxygen oxidizing agent* as compared to other oxidative hair coloring systems which are known in the art. See column 6, lines 13-24 of Dias. Specifically, Dias discloses compositions containing from *about 0.01% to less than about 3%* by weight of the composition of an inorganic peroxygen oxidizing agent. See column 6, lines 45-47 of Dias. Therefore, one of ordinary skill in the art, in view of the disclosure of Dias, would not be motivated to adjust the level of hydrogen peroxide in the composition of Dias to a level of greater than about 3%.

Second, Dias does not teach or suggest a developer composition containing from about 0.5% to about 5% of a phosphate ester surfactant. Dias broadly discloses a number of anionic surfactants suitable for inclusion in the compositions of Dias, among which are listed anionic surfactants such as alkyl phosphate esters and ethoxylated alkyl phosphate esters. However, Dias provides no suggestion to select, or no preference for, specifically phosphate ester surfactants, and Dias does not even specifically teach a range for the concentration of any surfactant. Although Dias provides exemplified compositions containing from 1.5% to 1.7% of surfactant, the specific surfactants that are exemplified separately as present in that range are the *nonionic* surfactant Ceteareth-25 and the *amphoteric* surfactant Cocoamidopropyl betaine. The exemplified compositions in Dias do not contain any *anionic* surfactant, let alone phosphate ester surfactant.

Moreover, in looking at the examples of Dias together with the written description of Dias, upon which the Examiner properly insists is necessary to ascertain the full teaching of Dias, one can see that the written description of Dias relating to a surfactant system is divided into four subsections: (i) Anionic Surfactants; (ii) Nonionic Surfactants; (iii) Amphoteric Surfactants; and (iv) Zwitterionic Surfactants. See column 27, line 33 to column 31, line 50 of Dias. Thus, the teachings of Dias differentiate among and separately describe the different classes of surfactants. As a result, the examples of Dias should be viewed consistently with the differentiated disclosure of the surfactants in the written description. In view of the written description of Dias, the exemplified compositions containing from 1.5% to 1.7% of either the *nonionic* surfactant Ceteareth-

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25 or the *amphoteric* surfactant Cocoamidopropyl betaine, at best, infer a suitable concentration range for *nonionic* and *amphoteric* surfactants. But, the teachings of Dias, including the written description and the exemplified compositions, are silent as to a concentration range for any *anionic* surfactant, including phosphate ester surfactant.

Additionally, Dias fails to contemplate the benefit provided by Applicant's developer composition. No teaching or suggestion is made in Dias to incorporate phosphate ester surfactant in a developer composition containing anionic amphiphilic polymer in order to facilitate the removal of polymeric film formed during or after the manufacture of the developer composition on the surface of manufacturing equipment. Therefore, it would not have been obvious to one of ordinary skill in the art to incorporate phosphate ester surfactant at Applicant's claimed range of concentration in a hair coloring composition containing anionic amphiphilic polymer to achieve Applicant's developer composition. Accordingly, a *prima facie* case of obviousness has not been established with respect to Applicant's present claims 17-24.

Alternatively, even if a *prima facie* case has been established, Applicant has overcome the presumption of obviousness by a showing of superior and unexpected results for Applicant's developer composition having the claimed phosphate ester surfactant range versus similar developer compositions having no phosphate ester surfactant. Although arguments of counsel cannot take the place of factually supported objective evidence, rebuttal evidence can be presented in the specification. See *In re Soni*, 54 F.3d 746, 750 (Fed. Cir. 1995). "Consistent with the rule that all evidence of nonobviousness must be considered when assessing patentability, the PTO must consider comparative data in the specification in determining whether the claimed invention provides unexpected results." *In re Soni*, 54 F.3d at 750.

In the Examples at page 14, Table 1 and page 15, Table 2 of the specification, Applicant has demonstrated superior and unexpected results regarding the benefit of incorporating phosphate ester surfactant in developer compositions containing anionic amphiphilic polymers. Specifically, Applicant has shown that incorporating phosphate ester surfactant in the described developer compositions facilitates the removal of polymeric film formed on the surface of manufacturing equipment during or after the manufacture of the developer composition. Example 1 of Table 1 contains 2.5% of trilaureth-4 phosphate. In Table 2, Example 1 is compared as Developer Composition B

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against a Developer Composition A which lacks the phosphate ester surfactant. For thick film, Developer Composition B has a rinse time which is more than about 4.4 times faster than for Developer Composition A. For thin film, Developer Composition B has a rinse time which is about 48.0 times faster. Separately, Example 4 of Table 1 contains 5.0% of trilaureth-4 phosphate. In Table 2, Example 4 is compared as Developer Composition D against a Developer Composition C which lacks the phosphate ester surfactant. For thick film, Developer Composition D has a rinse time which is more than about 18.5 times faster than for Developer Composition C. For thin film, Developer Composition D has a rinse time which is about 60.0 times faster.

Although Applicant only presents comparative data in the specification for two example developer compositions which respectively comprise 2.5% and 5.0% of a phosphate ester surfactant, Applicant respectfully submits that such data is sufficient to support the broader claimed phosphate ester surfactant range of about 0.5% to about 5%. The nonobviousness of a broader claimed range can be supported by evidence based on unexpected results from testing a narrower range if one of ordinary skill in the art would be able to determine a trend in the exemplified data. *See In re Kollman*, 595 F.2d 48 (C.C.P.A. 1979); MPEP 716.02(d). The comparative data in the specification, discussed above, demonstrate consistently and significantly (*i.e.*, from about 4.4 times to about 60.0 times) lower rinse times for compositions containing phosphate ester surfactant at the two different levels within Applicant's claimed range.

Therefore, Applicant has shown by the examples in the specification of the present Application that polymeric film formed on equipment during manufacture of developer compositions containing anionic amphiphilic polymers have a significantly lower rinse time when the composition also contains from about 0.5% to about 5% of a phosphate ester surfactant as compared to the composition without a phosphate ester surfactant.

Accordingly, Applicant's claims 17-24 are novel and nonobvious over Dias.

Rejections Under 35 USC 103(a) Over Applicant's Specification in view of US Patent No. 6,432,147 to Dias et al.

Claims 1-16 are rejected under 35 USC 103(a) as being unpatentable over the state of the prior art allegedly admitted by Applicant in the Background of the Invention

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section of the specification of the present Application at pages 1-3 ("the Background") in view of US Patent No. 6,432,147 to Dias et al ("Dias"). The Examiner asserts that Applicant has admitted in the Background that thickened hair dye compositions comprising anionic amphiphilic polymers leave a polymeric film on stainless steel manufacturing equipment. The Examiner also asserts that Applicant admitted that the polymeric film is conventionally removed by a hot alkaline solution. The Examiner then asserts that the composition of Dias comprises the claimed ingredients and has the claimed pH. Thus, the Examiner asserts, the limitations of Applicant's method of cleaning have been met when the allegedly admitted state of the prior art in the Background is combined with the composition of Dias. Applicant respectfully traverses the present rejection based on the following comments.

The combination of the Background together with Dias does not teach or suggest all of Applicant's claim limitations and, therefore, does not establish a *prima facie* case of obviousness (MPEP 2143.03). Applicant's claims 1 and 9 require, *inter alia*, that during the preparation of the aqueous composition from *about 0.5% to about 5% of a phosphate ester surfactant is incorporated* in the aqueous composition. Although the Background states that hair color compositions containing anionic amphiphilic polymers tend to form an adherent polymeric film on manufacturing equipment and that hot alkaline solution has been used with some success to remove this polymeric film, neither the Background nor Dias teaches or suggests a method of cleaning a surface to which an adherent polymeric film has formed wherein the method requires incorporating phosphate ester surfactant at Applicant's claimed range in the composition containing anionic amphiphilic polymer.

The Background states that developer compositions are known to contain various surfactants, such as Ceteareth-20, Nonoxynol-4, and sulfated castor oil. However, the Background also states that developer compositions which contain such various surfactants and which also contain anionic amphiphilic polymer still tend to form adherent polymeric films on the surfaces of manufacturing vessels. Surprisingly, Applicant has discovered that the removal of adherent polymeric films from the surface of manufacturing equipment is facilitated by the incorporation of phosphate ester surfactant in the composition containing anionic amphiphilic polymer. Yet the incorporation in the developer composition of the phosphate ester surfactant as an agent to facilitate the removal of adherent polymeric films from the surface of manufacturing

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equipment does not negatively impact the performance of the anionic amphiphilic polymer in its intended purpose in the developer composition as a thickening agent which thickens upon mixture with the alkaline hair dye composition. Nothing in the Background teaches or suggests incorporating in the developer composition an agent to facilitate the removal of adherent polymeric films formed from the anionic amphiphilic polymer, moreover, such an agent which does so without negatively impacting the thickening properties of the anionic amphiphilic polymer.

Similarly, Dias fails to teach or suggest incorporating in the developer composition an agent to facilitate the removal of adherent polymeric films formed from the anionic amphiphilic polymer. As discussed above, Dias broadly discloses a number of anionic surfactants suitable for inclusion in the compositions of Dias, but Dias provides no suggestion to select, or no preference for, specifically phosphate ester surfactants. Dias does not even specifically teach a range for the concentration of any surfactant. Further, Dias does not contemplate the benefit provided by incorporating phosphate ester surfactants in developer compositions containing anionic amphiphilic polymer.

Therefore, it would not have been obvious to one of ordinary skill in the art to incorporate phosphate ester surfactant at Applicant's claimed range of concentration in a composition containing anionic amphiphilic polymer to achieve Applicant's methods of cleaning. Accordingly, a *prima facie* case of obviousness has not been established with respect to Applicant's present claims 1-16.

Alternatively, and as discussed above, even if a *prima facie* case has been established, Applicant has overcome the presumption of obviousness by a showing of superior and unexpected results for Applicant's developer composition having the claimed phosphate ester surfactant range versus similar developer compositions having no phosphate ester surfactant. Specifically, in the Examples at page 14, Table 1 and page 15, Table 2 of the specification, Applicant has shown that incorporating phosphate esters in the described developer compositions, at levels of 2.5% and 5.0%, facilitates the removal of polymeric film formed on the surface of manufacturing equipment during or after process manufacture of the developer composition. The comparative data in the specification demonstrate consistently and significantly (*i.e.*, from about 4.4 times to about 60.0 times) lower rinse times for compositions containing phosphate ester

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surfactant at the two different levels within Applicant's claimed range. See page 14, Table 1 and page 15, Table 2 of the specification.

Accordingly, Applicant's claims 1-16 are novel and nonobvious over the combination of the Background and Dias.

CONCLUSION

In light of the remarks presented herein, it is requested that the Examiner reconsider and withdraw the present rejections. Early and favorable action in the case is respectfully requested.

Applicant has made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, Applicant respectfully requests reconsideration of this application, entry of the amendments presented herein, and allowance of Claims 1-24.

Respectfully submitted,

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Date: December 21, 2004
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